Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Chemistry The Structure of the Atom (Chapters 4 Outline)**

***AS YOU READ, RESPOND TO THE FOLLOWING:***

*Vocabulary*: **Define in your own words**

Atom-

Cathode ray-

Electron-

Nucleus-

Proton-

Neutron-

Atomic number-

Isotope-

Mass number-

Atomic mass unit (amu)-

Radioactivity-

Radiation-

Nuclear reaction-

Radioactive decay-

Respond to the prompts below:

What are the similarities and differences of the atomic models of Democritus, Aristotle, and Dalton? Explain a bit about each person's atomic model. (6 pts)

How is Dalton's theory used to explain the conservation of mass? Explain. (2 pts)

Describe the location of the subatomic particles that make up an atom. Also, describe each subatomic particle's relative mass in comparison to each other. (4 pts)

Explain the significance of Rutherford's experiment with the gold foil. Why was his findings significant? (2 pts)

Why are atomic masses no whole numbers? Explain. (2 pts)

How are alpha, beta, and gamma radiation characterized in terms of mass and charge? Give a detailed description of each type of radiation. (6 pts)

***ABOUT THE READING:***

Write three things that you learned about the Structure of the Atom*:*

***Make sure to write a full sentence.***

*Example: I learned that a nuclear equation shows how an element will omit a radiation particle while still demonstrating the law of conservation of mass.*

*1.*

*2.*

*3.*

***Assigned work****: Chapter 4 assessment: 38, 55, 56, 71-75, 89, 96*